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Attorney No.: 60,512-003
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REMARKS

No new matter is added to this amendment. By this amendment, claims 20, 29, 40, and 48 have been amended and claims 52-56 have been added. The claims remaining in consideration are claims 20-56. Reconsideration is respectfully requested.

Claims 20-51 of the instant application stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-23 of U.S. Application No. 09/865,756 (the '756 application). The '756 application was filed June 25, 2001 and claims the benefit of U.S. provisional application 60/207,892 filed June 25, 2000.

The instant application claims priority to U.S. Patent Application No. 09/535,411, filed March 24, 2000 (now U.S. Patent No. 6,539,101), which claims priority to U.S. Patent Application No. 09/490,687, filed January 24, 2000 (now U.S. Patent No. 6,307,956). In accordance with 35 U.S.C. § 120 and MPEP § 201.11, the instant application has an effective filing date of or prior to January 24, 2000.

The Examiner has asserted a rejection based on the "One-Way Obviousness" standard defined by MPEP § 804(II)(B)(1)(a). This standard is only appropriate when "the application at issue is the later filed application or both are filed on the same day." See MPEP § 804(II)(B)(1)(a), page 804-23. Since the effective filing date of the instant application is earlier than the filing date of the '756 application (June 25, 2001), the rejection of the claims of the instant application under the doctrine of obviousness-type double patenting is inappropriate and must be withdrawn.

Furthermore, the doctrine of double patenting "seeks to prevent the unjustified extension of a patent exclusivity beyond the term of a patent." See MPEP § 804, page 804-11. The Examiner's obviousness-type double patenting rejection does not support the public policy and purpose of this doctrine. Since any patent to issue from the instant application would expire before the expiration of a patent to issue from the '756 application, there is no public policy reason for applying the doctrine of double patenting.

Accordingly, it is respectfully submitted that the Examiner's rejection of claims 20-51 under the doctrine of obviousness-type double patenting over claims 20-23 of the '756 application is overcome.

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Claims 20-51 of the instant application also stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Application No. 09/865,658, filed October 21, 2001, and now issued as U.S. patent 6,925,565 (the '565 patent). The '565 patent claimed no priority to earlier applications.

The instant application's effective filing date is earlier than the filing date of the '565 patent (October 21, 2001). Therefore, applying the same reasoning set forth above, it is respectfully submitted that the Examiner's rejection of claims 20-51 under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of the '565 patent is also inappropriate and must be withdrawn.

Claims 20-51 were rejected under 35 USC §103(a) as being obvious over U.S. Patent 5,103,486 issued April 7, 1992 to Victor J. Grippi ("Grippi") in view of US Patent 5,869,791 issued February 9, 1999 to Nigel D. Young ("Young") and US Patent 6,076,167 issued June 13, 2000 to Stephen J. Borza ("Borza"). This rejection is respectfully traversed. Several minor modifications were made to the claims, without adding any new matter thereto. Applicant has made these amendments solely to provide clarification and add consistency to the claims and move the application towards issuance.

A copy of the above claim amendments along with a draft response were faxed to Examiner Dang on July 8, 2005 and a telephone interview was conducted on August 11, 2005.

This response serves as Applicant's summary of the telephone interview and responds to the points raised during the interview. During the telephone interview, the Grippi and Young references were discussed in view of the proposed claim amendments. The obvious-type double patenting rejections were also discussed. No agreement was reached on any outstanding rejection. The Examiner indicated that independent claims 40 and 48 might be patentable if the term "body" was amended to "stylus body".

Claims 20-51 were previously rejected under 35 USC §102 or 35 USC §103 over Grippi. These two rejections were traversed by Applicant in prior amendments. Consequently, the Examiner has withdrawn these two rejections stating "Applicant's arguments filed on 3/2/05 with respect to claims 20-51 have been fully considered and are persuasive."

Independent claim 20, as amended, sets forth a stylus for use as an identity verification device coupled to a processor. The stylus includes a stylus body and a sensor on or within the

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stylus body. In other words, the sensor may be partially within and partially outside of the stylus body. The sensor is adapted to capture a thumbprint of a user as a user finger touches the sensor. Independent claim 20 has been amended to clarify that the sensor is located at *and within* the stylus body.

In contrast, Grippi discloses a hand held writing implement 10 which differs from the present invention as embodied in independent claim 20, in three ways. First, the Grippi stylus 10 does not teach the capture of the thumbprint. As shown in Figures 2 and 3, the stylus 10 includes a prism detector 14 and a fingerhood which is located adjacent the prism detector 14 (see column 4, lines 39-51). The prism detector 14 is inlaid within the stylus 10. The fingerhood houses an LED 20 and a photodiode 22 which are used to detect the presence of a finger. The fingerhood is designed to allow positioning the subject finger along an axis conducive to detection. However, as shown, the only finger conducive to detection using the only disclosed embodiment of the Grippi reference is the "index" finger when a user attempts to sign his/her signature. Thus, the Grippi device cannot be used to capture the thumbprint of a user.

Second, the separate detection array 72 does not "capture a thumbprint of a user as a user thumb touches the sensor". Rather, the Grippi device 10 requires *manual actuation of a separate switch 36* (see column 8, line 59 to column 9, line 2).

Third, a traditional sensor responds to an input quantity by generating a functionally related output, usually in the form of an electrical or optical signal. The sensor generally involves data capture of a condition, such as temperature, pressure, brightness, field strength, or motion. While, the Grippi on-line verification system 66 does include data capture (referred to as the "X-Y strobe" in column 7, lines 15-18), the Grippi stylus 10 does not. Once LED 20 and photodiode 22 detect the presence of the finger, the Grippi stylus 10, using prism 14 and directional mirror 60 (comprising 58, 60, 62, 64) directs an internally reflected image of the fingerprint (see column 6, lines 1-24) onto detection array 72 which is located on verification system 66 separate and apart from the Grippi stylus 10. Since the recording surface, where the "X-Y strobe" actually takes place, is exterior to the Grippi stylus 10, all of the necessary elements for a full sensing means are not "located on or within" the stylus body, as required by the claims.

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By including the data capture inside Applicant's stylus, such stylus is compatible with conventional signature pads, or touch-sensitive screens. Also, Applicant's stylus can be used to confirm any writing, not just the signature. In addition, Applicant's stylus can either be tethered or wireless, the wireless embodiment being particularly useful in controlled environments (hospitals, military bases, and cruise ships), where each user carries his/her own stylus.

As explained above, Applicant respectfully asserts that the Grippi stylus 10 does not include a sensor that captures the thumbprint of a user as required by independent claim 20.

The Examiner utilizes Young to teach "a sensor coupled to the stylus body, the sensor being adapted to capture a thumbprint of a user finger touches [sic] coupled to the stylus body" (Present Office Action, page 4, section 7, third full paragraph).

However, applicant respectfully asserts that Young makes no such teaching.

Young discloses a touch sensing device having a plurality of touch sensing elements which, according to the specification, may be used in a number of applications. For example, the touch sensing device may be used as a "keypad or, with larger numbers of elements arranged in row and column matrix, as a graphics table or display overlay *and operated with a stylus.*" (Emphasis added, see Abstract). For example, the stylus is used with the array for user input. The specification also mentions that the array "can also be used as a fingerprint sensor which detects the position of ridges and valleys in a person's fingerprint." (See column 1, lines 31-33).

In the telephone interview, the Examiner emphasized two adjacent sentences from the Background of the Invention section. These two sentences are reprinted below.

"The touch input element in this case can be a hand-held stylus. A high resolution array can also be used, for example, as a fingerprint sensor which detects the position of ridges and valleys in a person's fingerprint."
Column 1, lines 31-33.

As applicant understands the Examiner's position, the Examiner is using these two sentences to show a teaching or motivation to place a sensor within a stylus, i.e., to overcome the shortcomings of Grippi.

However, Applicant respectfully asserts that Young makes no such teaching and that the Examiner is taking these statements out of context and improperly combining them, using hindsight, to arrive at an improper conclusion.

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First, these two statements refer to two separate embodiments of the Young invention. In review the rest of the Background section, Young uses the terms "touch input" and "inputs to the system", as indicated below.

"This invention relates to touch sensing devices having a plurality of touch sensing elements, each comprising first and second overlapping electrically conductive layers carried on a common support and in which the second electrode is spaced from the first electrode and is adapted to be displaced toward the first electrode in response to a *touch input*, and to methods of making such devices.

Touch sensing devices of the above kind can be used, for example, as user operable touch switches on electrical appliances or electronic equipment or in a keypad operable by a user's finger or other *input element*. Touch sensing arrays, comprising a large number of touch sensing elements arranged, for example, in a row and column matrix array, can be used as overlays for the display screen of a CRT, liquid crystal, or other display system providing a user interface through which *inputs* to the system, such as control commands, can be entered by touching appropriate touch sensing elements in the array. Similarly, an array of touch sensing elements can be used as a graphics tablet or like input device to a computer system enabling information according to graphical representations, such as *drawings or handwriting* drawn on the array, to be entered by the user. The *touch input element* in this case can be a hand-held stylus. A high resolution array can also be used, for example, as a fingerprint sensor which detects the position of ridges and valleys in a person's fingerprint." (Emphasis added).

Taking the sentences cited by the Examiner in the context in which they appear above, it is clear that the touch sensing devices in Young are responsive to touch input from an input element, such as a finger or other input element. The stylus, in Young, is used as the touch input element to permit the user to put "graphical representations, such as drawings or handwriting" on the touch sensing devices. The last sentence refers to a different embodiment, in which the sensing device in response to a fingerprint touching the touch sensing device, detects the ridges and valley's of a fingerprint.

Young contains no teaching nor statement which places the touch sensing devices on or within a stylus, as required by the present invention.

Other portions of the Young specification support applicant's position.

Use of the Young touch sensing devices with an LCD display panel is described on Column 3, line 49 to column 4, line 20.

Use of the Young touch sensing devices as fingerprint sensors is discussed on Column 5, lines 33-55.

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Actuation of the Young touch sensing device or element using "typical touch input pressure, for example, from a finger or stylus" is discussed on column 6, line 57, to column 7, line 7.

The entire specification supports applicant's position, i.e., that the touch sensing device or elements disclosed in Young may be actuated or used via a touch input or element, such as a finger or stylus. Furthermore, Young's touch sensing device or elements may be used as a finger print sensor. However, Young contains no teaching or suggestion, *contrary to the Examiner's position*, to place its touch sensing device or elements on or within a stylus as required by the present invention.

Again, Young does not teach, or suggest, that the array, *as a fingerprint sensor*, be utilized *with* the stylus. Nor does Young teach or suggest that the array, as a fingerprint sensor, be located on or within a stylus.

The Examiner utilizes Borza to show the capture of a thumbprint. However, Borza does not overcome the shortcomings of Grippi and/or Young.

Since Grippi and/or Young and/or Borza, singularly or in combination do not teach or suggest all of the elements of independent claim 20, applicant respectfully asserts that the §103(a) rejection of independent claim 20 is improper and must be withdrawn.

Claims 21-28 are ultimately dependent upon allowable claim 20. Therefore, for the reasons set forth above and based on their own merits, applicant respectfully asserts that claims 21-28 are also allowable.

Amended independent claim 29 sets forth an identity verification device with a stylus, a sensor, a memory device and a processor. The stylus has a body. The sensor is coupled to and located within the body and is adapted to capture a thumbprint of a user as a user thumb touches the stylus body. In other words, the sensor may be partially within and partially outside of the stylus body. The memory device stores at least one reference print. The processor is coupled to the sensor and the memory device and is adapted to receive the captured thumbprint and to compare the captured thumbprint with the at least one reference print.

As discussed above, the Grippi device 10 does not include a stylus with a sensor that captures the thumbprint. Rather, the Grippi device 10 simply optically relays, without physical connection, an image to a detection array 72 which is located on a separate device.

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In addition, the separate detection array 72 of the Grippi reference does not "capture a thumbprint of a user as a user thumb touches the stylus body" as noted above but, rather, the Grippi device 10 requires *manual actuation of a separate switch 36* (see column 8, line 59 to column 9, line 2).

Furthermore neither Young nor Borza overcome the deficiencies of Grippi, as discussed above.

Since neither Grippi nor Young nor Borza include one or more limitations of independent claim 29, Applicant respectfully argues that the §102(a) rejection of independent claim 29 is improper and must be withdrawn.

Claims 30-39 are ultimately dependent upon allowable claim 29. Therefore, for the reasons set forth above and based on their own merits, applicant respectfully asserts that claims 30-39 are also allowable.

Independent claims 40 and 48, as amended, set forth a stylus having a stylus body, a sensor, and memory device, and a processor. The sensor is coupled to and located within the stylus body and is adapted to capture a fingerprint of a user as the user grasps the stylus. In other words, the sensor may be partially within and partially outside of the stylus body. The memory device is within the stylus body and is adapted to store at least one reference fingerprint. The processor is within the stylus body and is coupled to the sensor and the memory device. The processor is adapted to receive the captured fingerprint. The processor is adapted to compare the captured fingerprint with the at least one reference fingerprint.

During the aforementioned telephone interview with Examiner Dang, he suggested that independent claims 40 and 48 would be patentable (pending another search) if the word "stylus" was inserted prior to "body". Such an amendment has been made, however, applicant asserts that such amendment has no effect on the scope of the claim, merely providing a more descriptive term to the body.

As discussed above, the Grippi device 10 does not include a sensor coupled to a stylus that captures a fingerprint as the user grasps the stylus. Furthermore, the Grippi device 10 does not include a memory device or a processor *contained within* the body of its device 10.

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Since neither Grippi nor Young nor Borza include one or more limitations of independent claims 40 and 48, Applicant respectfully argues that the §103(a) rejections of independent claims 40 and 48 are improper and must be withdrawn.

Claims 41-47 and claims 49-51 are dependent upon allowable claims 40 and 48, respectfully. Therefore, for the reasons set forth above, Applicant respectfully assert that claims 41-42 and 49-51 are also allowable.

New independent claim 52 sets forth a stylus for use as an identity verification device. The stylus is coupled to a processor. The stylus includes a stylus body having a sensor. The sensor is adapted to capture a thumbprint of a user as a user thumb touches the sensor coupled to the stylus body. Neither Grippi, Young, nor Borza, singularly or in combination make such a teaching. Therefore, applicant respectfully asserts that new independent claim 51 is allowable.

The Applicant respectfully asserts that claims 20-56 of the present application are now in condition for allowance. An early Notice of Allowance is solicited. If the Examiner believes that a telephone interview would be beneficial, please contact the undersigned at the number indicated.

The Commissioner is hereby authorized to charge the fee for the three (3) additional claims to our Deposit Account No. 08-2789 in the name of Howard & Howard Attorneys, P.C., as well as charge any additional fees that may become required, or credit any overpayments. Further and favorable reconsideration of the outstanding Office Action is hereby requested.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS, P.C.

August 12, 2005

Date



James R. Yee, Registration No. 34,460
The Pinehurst Office Center, Suite #101
39400 Woodward Avenue
Bloomfield Hills, MI 48304-5151
(248) 645-1483

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CERTIFICATE OF FACSIMILE

I hereby certify that this **Amendment** for United States Patent Application Serial Number **09/976,080** filed **October 12, 2001** is being transmitted by facsimile to the United States Patent & Trademark Office to fax number (703) 872-9306 on **August 12, 2005**.

Melissa Dadisman
Melissa S. Dadisman